

## Special Issue

# Advanced Materials and Technologies for Aerospace and Mechanical Engineering

### Message from the Guest Editor

Advanced composites, including carbon fiber reinforcements and ceramic matrix composites, are extensively utilized in the aerospace and mechanical engineering domains due to their exceptional mechanical attributes, lightweight nature, and durability. Moreover, novel methodologies in advanced technologies pertaining to structural vibration and noise control, such as active vibration control and intelligent damping systems, have demonstrably enhanced dynamic performance and ride comfort in aerospace vehicles and mechanical systems. Our Special Issue on "Advanced Materials and Technologies for Aerospace and Mechanical Engineering" aims to explore the latest developments in materials science and engineering technologies to drive innovation in these fields. The scope includes, but is not limited to, the following areas:

- Lightweight materials for structural applications;
- Piezoelectric and magnetostrictive materials for smart actuators and sensors;
- Data analytics and machine learning for predictive maintenance;
- Thermal management in high-power aerospace systems;
- Simulation and modeling of noise and vibration phenomena in complex systems.

### Guest Editor

Prof. Dr. Qingshan Wang

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### Deadline for manuscript submissions

closed (20 February 2025)



## Applied Sciences

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### Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal Applied Sciences has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

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### Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo  
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